THE RESOURCE SHARER

APR 1975 RSTS-11 SPECIAL INTEREST GROUP NEWSLETTER VOL.2 NO.1

FROM THE EDITOR

THINGS ARE HAPPENING. RSTS USERS HAVE BEEN WRITING OR CALLING ME EVERY DAY WITH RSTS PROBLEMS OR SUGGESTIONS FOR THE SIG. NOT ALL THE USERS HAVE BEEN PLEASED WITH THE SIG, BUT THEY HAVE HAD IDEAS OF WHAT ITS DIRECTION SHOULD BE. THE POINT IS THINGS ARE MOVING AND USERS ARE GETTING INVOLVED.

ONE THING THAT HAS BECOME CLEAR IS THE NEED FOR "SPECIAL INTEREST GROUPS WITHIN THE RSTS-11 SPECIAL INTEREST GROUP". THESE WOULD BE COMMITTEES OF THE SIG DESIGNED TO SERVE THE NEEDS OF USERS WITH COMMON SUB-INTERESTS. SOME OF THE AREAS SUGGESTED FOR SUB-GROUPS INCLUDE: LARGE RSTS/E INSTALLTIONS, RSTS VERSION 4 INSTALLATIONS, RSTS MEDICAL APPLICATIONS, RSTS COMMERCIAL APPLICATIONS, AND RSTS EDUCATIONAL APPLICATIONS.

THE RSX-11 SIG HAS ALREADY FORMED SEVERAL SUB-GROUPS AND IS HOLDING SUB-GROUP SESSIONS IN MIAMI. THIS WILL OFFER THEIR MEMBERS THE OPPORTUNITY TO ATTEND SESSIONS GEARED TO THEIR SPECIFIC RSX APPLICATIONS AS WELL AS THE RSX GENERAL SESSION. I THINK WE SHOULD TRY TO REORGANIZE THE RSTS SIG SO THAT WE CAN DO THE SAME THING AT THE FALL DECUS MEETING.

ANYONE WITH AN IDEA FOR A SUB-GROUP OR WILLING TO SERVE ON A SUB-GROUP COMMITTEE PLEASE WRITE TO ME OR SEE ME IN MIAMI. THE PAY FOR SERVING IS NOT VERY MUCH BUT AT LEAST IT IS NOT AFFECTED BY INFLATION.

BOB BRANTON
COMPUTER CENTER - SOSU
DURANT, OK. 74701
(405) 924-0121 EXT 595

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RSTS STATUS REPORT

ASK DEC ABOUT RSTS/E V5C OR RSTS V4B (WHEN,WHAT, HOW MUCH) AND YOU GET THE ANSWER "THAT CAN'T BE RELEASED YET". THEY WILL HAVE SOMETHING TO SAY ,BUT NOT UNTIL DECUS IN MIAMI. I GUESS THAT MAKES IT MORE IMPORTANT TO ATTEND DECUS. IN THE NEXT NEWSLETTER I'LL REPORT WHAT IS SAID ABOUT THE STATUS OF RSTS AT DECUS.

BOB GAFFORD OF DEC IS CONCERNED ABOUT USER REACTION TO RSTS DOCUMENTATION. HE HAS DECIDED TO HOLD A SPECIAL SESSION AT DECUS ON RSTS DOCUMENTATION, SO BRING ANY DOCUMENTATION QUESTIONS YOU HAVE TO DECUS.

SPR'S
*****

JACK BOUKNIGHT, DATA PROCESSING MANAGER, YOUNG DOOR COMPANY, PLYMOUTH, INDIANA IS STILL HAVING TROUBLE GETTING A SATISFACTORY REPLY TO HIS SPR CONCERNING THE "APPROXIMATELY EQUAL TO" OPERATOR, "==". THE PROBLEM SEEMS TO BE IN WHAT IS MEANT BY "==". BELOW IS DEC SOFTWARE COMMUNICATIONS REPLY TO HIS SPR FOLLOWED BY A PORTION OF HIS RESPONSE. I'M SURE JACK WOULD APPRECIATE ANY COMMENTS OTHER USERS MIGHT HAVE.

**** DEC SOFTWARE COMMUNICATIONS REPONSE TO SPR #11-4174 ****

PROBLEM:
THE BASIC-PLUS APPROXIMATELY EQUALS OPERATOR (==) APPEARS TO MALFUNCTION.

DISPOSITION:
THE BASIC-PLUS MANUAL IS NOT WRONG; IT STATES THAT IF TWO NUMBERS PRINT THE SAME, THEN THEY ARE APPROXIMATELY EQUAL. PLEASE NOTE THAT 0 AND .2046636E-11 ARE NOT EQUAL TO WITHIN SIX DIGITS OF ACCURACY AND THEREFORE ARE NOT APPROXIMATELY EQUAL.

**** JACK BOUKNIGHT'S RESPONSE ****

RETURNING TO THE QUESTION POSED IN SPR #11-4174, THE PROGRAM THAT ON THE NEXT PAGE MORE CLEARLY STATES THE PROBLEM. SINCE YOU HAVE FALLEN BACK ON A LITERAL INTERPRETATION OF THE BASIC-PLUS DOCUMENTATION,AS SHOWN ON PAGE 2-9 (DEC-11-ORBPA-C-D), THE FOLLOWING MUST BE ANSWERED:

WHAT STYLE OF PRINTING IS ASSUMED WHEN THE STATEMENT "...MEANS THAT THE TWO QUANTITIES LOOK THE SAME WHEN PRINTED."?

AS IS OBVIOUS, THE ANSWER BEARS DIRECTLY ON THE DEFINITION OF THE == OPERATION. LIKE I SAID BEFORE, EITHER THE BOOK IS WRONG, NOT CLEAR ENOUGH, OR THE OPERATOR WORKS IMPROPERLY.

I WOULD SUGGEST THAT SOMEONE WITH A FAIR AMOUNT OF MATHEMATICAL BACKGROUND AND TRAINING LOOK AT THE WHOLE QUESTION OF THE WAY THE OPERATOR WORKS. IF THE PERSON USING THE BASIC-PLUS LANGUAGE IS A RELATIVELY UNKNOWLEDGEABLE INDIVIDUAL, SUCH AS A STUDENT OR NON-COMPUTER SCIENTIST USER, HE WILL MOST CERTAINLY NOT EXPECT THE OPERATOR TO TELL HIM THAT 0.00 AND .2046636E-11 ARE NOT NEARLY EQUAL TO WITHIN 6 PLACES..

THANK YOU FOR YOUR EXPEDIENT SERVICE.

P.S. THE PROBLEM AROSE ORGINALLY AS FOLLOWS. IN OUR BUSINESS ACCOUNTING SYSTEM, YEAR-TO-DATE BALANCE FIELDS SHOULD EQUAL 0.00 AT THE END OF THE YEAR IN SOME CASES. SINCE THESE FIELDS ARE FLOATING-POINT(4 WORD) FIELDS IN OUR SYSTEM, DEBITS AND CREDITS OVER THE YEAR LEFT A SMALL RESIDUE OF "BITS" IN THE FIELD DUE TO INHERENT MACHINE INTERNAL INACCURACY. THESE "BITS" RESULT IN BALANCES LIKE 0.2046636E-11 DOLLARS. STILL THEY SHOULD BE EQUAL TO 0.00 WITHIN 6 DIGITS OF ACCURACY.

CONSIDER THE FOLLOWING EXAMPLE:

```
TEST     11:08 AM      14-FEB-75
10 A=0.000000
15 PRINT "A=";A
20 B=0.2555555E-11
25 PRINT "B=";B
30 PRINT USING "A=*.******",A
40 PRINT USING "B=*.******",B
50 IF A == B
     THEN PRINT "A IS NEARLY EQUAL TO B"
     ELSE PRINT "A IS NOT NEARLY EQUAL TO B"
60 END

RUNNH
A= 0
B= .2555555E-11
A=0.000000
B=0.000000
A IS NOT NEARLY EQUAL TO B
READY
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-NOTICES-

THIS FEATURE OF THE NEWSLETTER IS DESIGNED TO GIVE SIG MEMBERS AN OPPORTUNITY TO REQUEST INFORMATION FORM OTHER USERS AND TO DESCRIBE AVAILABLE PROGRAMS OR SERVICES.

*****WANTED*****

U.C. SANTA BARBARA IS IN THE PROCESS OF INSTALLING A RSTS/E SYSTEM. THEY ARE LOOKING FOR PROGRAMS THAT MIGHT BE OF USE TO THEM IN THEIR ACADEMIC AND RESEARCH PROGRAMS. IF ANY OF THE SIG MEMBERS HAVE PROGRAMS THAT COULD HELP THEM PLEASE WRITE:

JOHN A. SONQUIST
PROFESSOR OF SOCIOLOGY
UNIV. OF CAL.,SANTA BARBARA
SANTA BARBARA, CAL 93106

ATTENTION LARGE USERS

THE CANADIAN PRIVY COUNCIL HAS JUST CONVERTED TO RSTS V5/B ON THEIR LARGE RSTS SYSTEM (17 CABINETS). THEY HAVE EXPERIENCED THE TYPE OF PROBLEMS THAT OCCUR WHEN YOU HAVE OR NEARLY HAVE THE MAXIMUM NUMBER OF DEVICES ON A SYSTEM AND ARE INTERESTED IN TALKING TO OTHER LARGE USERS ABOUT THEIR SPECIAL KINDS OF PROBLEMS. YOU CAN CONTACT:

R.S. WEDERAMM
PRIVY COUNCIL OFFICE
OTTAWA, CANADA K1A0A3

FOR SALE

BASIC-PLUS LANGUAGE MANUALS FOR SALE. BRAND NEW COPIES OF THE VERSION APPLICABLE TO V4A-12 AND/OR V5-21 (DEC-11-ORBPA-B-D, THIRD EDITION, MAY, 1973). TOTAL OF 57 COPIES IN STOCK; FIRST COME FIRST SERVE AT $6.00 PER COPY. ORDER FROM:

JOHN ZIMMERMAN
CONKEY'S BOOKSTORE
226 EAST COLLEGE AVE.
APPLETON, WI 54911

USED BASIC LANGUAGE MANUALS FOR SALE. USED BUT COMPLETE COPIES OF THE SAME EDITION AS LISTED ABOVE. A TOTAL OF 10 COPIES IN STOCK AT $4.00 PER COPY. ORDER FROM:

DIRECTOR OF COMPUTER SERVICES
LAWRENCE UNIVERSITY
APPLETON,WI 54911

THE PROGRAM EXCHANGE

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THE FOLLOWING PROGRAM ABSTACTS HAVE BEEN SENT TO ME BY SIG MEMBERS.

TITLE:

INTER-RSTS SYSTEM COMMUNICATION

AUTHOR:

EVANS GRIFFITHS & HART,INC.
1844 MASS AVE.
LEXINGTON,MASS 02173

ABSTRACT:

THE "INTCOM" PACKAGE PROVIDES A CONVENIENT MEANS OF INTERACTING WITH AND TRANSFERRING FILES BETWEEN RSTS SYSTEMS, USING STANDARD DIALUP LINES OR ACOUSTIC COUPLERS. THE PACKAGE CONSISTS OF FOUR PROGRAMS, TWO OF WHICH SUPPORT THE INTER-SYSTEM DIALOGUE, AND TWO OF WHICH SUPPORT AUTOMATIC FILE TRANSFERS BETWEEN SYSTEMS.

CONFIGURATION:

RSTS/E

COST:

$300 FOR A SINGLE PROCESSOR LICENSE

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TITLE:

LABX -- A REAL-TIME EXTENTION OF RSTS

AUTHOR:

EVANS GRIFFITHS & HART,INC.
1844 MASS AVE.
LEXINGTON, MASS 02173

ABSTRACT:

"LABX" IS A DEVICE HANDLER FOR A NUMBER OF REAL-TIME AND LABORATORY TYPE PERIPHERALS:

* ANALOG TO DIGITAL CONVERTER
* DIGITAL INPUT AND OUTPUT REGISTERS
* RELAYS
* LED DISPLAY

IN ITS CURRENT INCARNATION IT DRIVES AN LPS-11 WHICH INCLUDES ALL OF THESE SUB-DEVICES.

CONFIGURATION:

RSTS/E, LPS-11 OR AR-11 OR AD-01, ETC.

COST:

$2000 FOR A SINGLE PROCESSOR LICENSE FOR THE LPS-11 VERSION. THIS INCLUDES SOURCES, INSTALLATION INSTRUCTIONS, USER'S MANUAL, AND A NUMBER OF EXAMPLE PROGRAMS. ON-SITE HELP AND SPECIAL TAILORING FOR OTHER DEVICES AVAILABLE AT ADDITONAL COST.

TITLE:

GPRS -A COMPREHENSIVE FILE MANAGEMENT SYSTEM FOR THE PDP-11

AUTHOR:

EDUCOMP CORPORATION
196 TRUMBULL STREET
HARTFORD, CONNECTICUT 06103

ABSTRACT:

AN INFORMATION MANAGEMENT SYSTEM WHICH RUNS UNDER RSTS. THE GENERAL PURPOSE RETRIEVAL SYSTEM (GPRS) PRODUCES A VARIETY OF REPORTS FORMATTED TO USER SPECIFICATIONS, SORTS, AND/OR SELECTS LOGICAL SUBSETS OF A FILE'S RECORDS (E.G., ALL MALES OVER AGE 25 BUT WHO ARE NOT MARRIED), AND PROVIDES A FAST SEARCH-BY-KEY INDEXED-SEQUENTIAL ACCESS METHOD FOR ON-LINE FILE MAINTENANCE. GPRS IS POWERFUL, YET EASY TO USE; THE SYSTEM'S COMMAND REPERTOIRE IS LEARNED READILY, AND ITS RESOURCES APPLIED EFFECTIVELY BY ANYONE AT A TERMINAL. GPRS SOFTWARE IS DISTRIBUTED IN SOURCE FORM, ACCOMPANIED BY SOFTWARE SUPPORT DOCUMENTATION AND "BUILDING BLOCK" SOFTWARE MODULES WHICH FACILITATE THE INTEGRATION OF USER-DEVELOPED SOFTWARE INTO THE GPRS FILE SCHEME.

CONFIGURATION:

RSTS OR RSTS/E

COST:

$5000

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LETTERS
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DEAR EDITOR:

A

WOULD USERS CARE TO COMMENT ON THE FOLLOWING SUGGESTED ENHANCEMENT TO RSTS/E:

IMPLEMENT A NEW "SYS" CALL WHICH WOULD CAUSE AN ERROR (" USER TRACE TRAP") AT THE BEGINNING OF EACH LINE. THIS WOULD THEN ENABLE THE USER TO PUT WHATEVER HE LIKES IN THE WAY OF TRACING AND DEBUGGING STATEMENTS INTO THE ERROR HANDLER, INSTEAD OF HAVING TO SPRINKLE "PRINT" STATEMENTS THROUGH THE PROGRAM.

THE SPECIFICATION I PROPOSE IS:

- SYS(CHR$(10)) ENABLE TRACE TRAP; THE NEXT TIME A NEW LINE IS ENCOUNTERED DURING EXECUTION OF THE PROGRAM, AN ERROR 65 WILL OCCUR.

- REWORD THE DEFINITION OF "RESUME" TO MAKE IT CLEAR THAT "RESUME" WITHOUT A LINE NUMBER RESUMES JUST AFTER THE LINE NUMBER OF THE ORIGINAL STATEMENT, WHEN THE TRAP WAS CAUSED BY A TRACE TRAP.

THE EXAMPLE ON THE NEXT PAGE SHOWS HOW YOU WOULD TRACE A PROGRAM TO FIND OUT WHERE YOUR VARIABLE A IS BEING CHANGED:

```
5 ON ERROR GOTO 9000
10 X$=SYS(CHR$(10))

          BODY OF PROGRAM BEING TRACED....

9000      IF ERR<>65 THEN 9500
9005      IF A<>A0 THEN PRINT "A CHANGED TO";A;"BETWEEN LINES";
           L0;"AND";ERL : L0=ERL : A0=A : X=SYS(CHR$(10)) :
           RESUME
9500      ! OTHER ERROR CONDITIONS
9900      ON ERROR GOTO
```

THE COMMENTS I WOULD LIKE FROM OTHER RSTS USERS CONCERN THE DETAILS OF THE SPECIFICATION. WOULD IT BE BETTER TO HAVE TRAP STAY ENABLED UNTIL SPECIFICALLY DISABLED? THIS WOULD INVOLVE SOME REWORDING OF THE DEFINITION TO ENSURE THAT TRAPS DON'T OCCUR WITHIN THE ERROR HANDLER. WOULD IT BE BETTER TO HAVE A TRACE TRAP OCCUR AT THE END OF EVERY STATEMENT, TO ALLOW FOR MULTI-STATEMENT LINES?

B

AS AN EXTENTION TO THE PROGRAMMING STANDARDS SUGGESTED IN THE DECEMBER '74 NEWSLETTER:

THE "ON ERROR GOTO" HANDLER SHOULD BE WRITTEN IN THE FORM:

```
9000      IF ERL=10 AND ERR=11 THEN 9505
9005      IF ERL=350 AND ERR=5 THEN 9520
9010      IF ERL=715 AND ERR=61 THEN 9550

9495      ON ERROR GOTO

9505      PRINT "UNEXPELTED EOF ON";F$: RESUME 5
9520      PRINT "FILE NOT FOUND" : RESUME 300
9550      C=0 : RESUME 9555
```

THE IMPORTANT POINTS ARE THAT ALL THE ERROR-HANDLING IS LOCATED IN ONE PLACE, AND THAT IT IS EASY TO SCAN THE HANDLER LATER, TO SEE WHAT ERRORS YOU HAVE ANTICIPATED AT A PARTICULAR LINE. SOME DEC SOFTWARE, FOR EXAMPLE LOGIN AND LOGOUT, ARE VERY DIFFICULT TO FOLLOW BECAUSE OF THE WAY "ON ERROR GOTO" HAS BEEN USED.

C

A QUICK PLAY WITH VERSION 5B SUGGESTS THAT THE USER CAN "REASSIGN" PERIPHERALS (E.G. OTHER TERMINALS) TO ERRCPY. IN OUR ENVIRONMENT THIS COULD BE A PROBLEM. HOW HAVE OTHER USERS PREVENTED THIS?

ROLLO ROSS
APPLICATIONS PROGRAMMER
SOUTH AUSTRALIAN INSTITUTE OF TECHNOLOGY
P.O. INGLE FARM, S. AUST. 5098

RSTS USER'S PROFILE

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IN VOL. 1 NO. 2 OF THE "RESOURCE SHAKER" WE PRINTED A RSTS USER'S PROFILE QUESTIONNAIRE THAT BOB JONES WORKED UP. SO FAR THERE HAVE BEEN 40 PROFILES SENT TO ME AND I HAVE PUT TOGETHER A USER DIRECTORY FROM THESE RESPONSES. HOWEVER BEFORE I SEND IT OUT I THOUGHT IT WOULD BE GOOD TO REPRINT THE QUESTIONNAIRE INCASE SOME OF YOU MIGHT WANT TO BE INCLUDED. IF YOU WANT TO BE INCLUDED PLEASE SEND YOUR PROFILE TO ME BY MAY 1. (NOTE: IF YOU HAVE ALREADY SENT A PROFILE YOU DON'T NEED TO SEND ANOTHER ONE)

NAME OF PRINCIPAL CONTACT:.....
(LAST) (FIRST) (INITIAL)

TITLE:.....

ALTERNATE CONTACTS:.....

ALTERNATE CONTACTS:.....

NAME OF INSTALLATION:.....

ADDRESS:.....

.....

CITY, STATE ZIP:.....

PHONE:.....

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HARDWARE DESCRIPTION:

RSTS MAIN FRAME IS (CIRCLE WHATEVER YOU FEEL LIKE):

PDP 11/05 PDP 11/10 PDP 11/20 PDP 11/40

PDP 11/45 PDP 11/50 PDP 11/54 PDP 11/70 BLACK

DISK DRIVES (CIRCLE ALL APPROPRIATE):

RS64 RS11 RK03 RK05 RP03 RP04 SPINNING MADLY

TAPE DRIVES (CIRCLE ANYTHING):

7 TRACK 9 TRACK DECTAPE

UNIT RECORD GEAR (CIRCLE ANYTHING YOU WANT):

CARD READER PAPER TAPE READER LINE PRINTER

CARD PUNCH PAPER TAPE PUNCH

TERMINALS (ONLY IF YOU HAVE SOME):

ASR33 ASR35 DECWRITER 2741

VT05 VT06 DECWRITER II VT50 RT02 OTHER

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APPLICATION (IF YOU HAVE ONE)

PLEASE USE THIS SPACE TO DESCRIBE HOW YOU USE YOUR RSTS SYSTEM:

.....

.....

.....

.....

.....

WE WOULD APPRECIATE YOUR TELLING US WHAT TO DO WITH THE INFORMATION WE MIGHT HAVE GLEANED FROM THIS PROFILE (CIRCLE ANYTHING APPROPRIATE):

1. SELL IT TO ANY MAILING HOUSE THAT WANTS IT.
2. GIVE IT TO ANY MAILING HOUSE THAT WANTS IT.
3. THROW IT AWAY.
4. DISTRIBUTE IT ONLY TO OTHER RSTS SIG MEMBERS.

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ARE YOU INTERESTED IN EXCHANGING PROGRAMS WITH OTHER RSTS USERS?

1. WE WOULD LIKE TO RECEIVE PROGRAMS FROM OTHER USERS.
2. WE HAVE PROGRAMS WE WILL GIVE TO OTHER USERS.
3. WE HAVE PROGRAMS WE WILL SELL TO OTHER USERS.
4. ALL OF THE ABOVE.
5. NONE OF THE ABOVE.
6. OTHER:.....

THANK YOU FOR YOUR CONSIDERATION, PLEASE REMEMBER THAT THE ACCURACY OF THIS SURVEY DEPENDS ENTIRELY ON THE ACCURACY OF YOUR ANSWERS (ALL OF YOU THAT CIRCLED "SPINNING MAULY", PLEASE NOTE!).

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PLEASE SEND YOUR PROFILE TO :

BOB BRANTON
COMPUTER CENTER
SOUTHEASTERN OKLA. STATE UNIVERSITY
DURANT,OK 74701